

**OCTOBER
2004**

**Danielle Bruno
Editor**

IDAHO STATE DEPARTMENT OF AGRICULTURE



This newsletter is published by the Idaho State Department of Agriculture, to provide information about Idaho's noxious weed program. Suggestions and articles from readers are encouraged. Noxious News is also available on-line at www.agri.idaho.gov/animal/weedintro.htm.



Voile and Safford Join ISDA Weed Program

The Idaho State Department of Agriculture (ISDA) has hired Matthew Voile for the position of manager of the Noxious Weeds and Invasive Weeds program.

"I am excited about the addition of Mr. Voile to our staff," said Director Pat Takasugi in making the announcement. "He brings a broad range of experience and expertise to this position, and I believe he will continue to keep Idaho at the forefront in addressing the important and growing awareness of invasive species."

Voile most recently served as the Noxious Weed Control Supervisor for Umatilla County in Pendleton, Oregon. He was previously the Stevens County Noxious Weed Board Coordinator in Colville, WA.

"Mr. Voile has vast experience dealing with many of the same issues we are dealing with in Idaho, and he understands that to successfully fight the war against invasive species it involves a well coordinated and combined effort of federal and state agencies, tribal and county involvement, legislators, and local residents," said Takasugi. "I look forward to his leadership on these and other issues."

"Taking this position in Idaho is an exciting move for me," said Voile. "I have followed the Idaho program from afar since its inception and it is very impressive, I am looking forward to getting started and being a part of this proactive team."

Matt holds a B.S. in Entomology with a focus in biological weed control from the University of Idaho.

Matt and his wife Kim have two daughters and 16 horses.

Matt began work at the department on August 9, 2004.

Additionally, ISDA employee Daniel Safford has been tapped as Agricultural Program Specialist for the Noxious Weeds program.

A Senior Agricultural Investigator with ISDA, Dan has been educating the pesticide industry and public of the risks and benefits of pesticides and investigating the misuse of pesticides and fertilizers since he joined the department in 1993. A graduate of California State University at Chico, CA. "Dan has considerable experience in the noxious weed arena and has a clear understanding of the job at hand for the state of Idaho," stated Matt Voile, ISDA Program Manager of the Noxious Weeds and Invasive Weeds program. "I am excited to have the opportunity to have added Dan to the ISDA weed staff."

Dan began his new responsibilities on September 5th. Be sure to congratulate Dan on his new position!



Update on the ISDA Noxious Weed Program

Matt Voile

As I enter my new position as Noxious and Invasive Weeds Program Coordinator, I am struck by the magnitude of Glen Secrist's and Brenda Waters' foresight, endless time commitments, communication skills, funding foraging, and, most of all, perseverance in the building of this program. I have the greatest respect for the excellent Legislative, Congressional, and Departmental representatives of this fine State for their foresight in the development of this State program, support monetarily, and through understanding of the issues involved. But mostly, I would like to recognize the outstanding people involved in the trenches. The State of Idaho is blessed with committed, courageous people that live the fight against the endless tide of invading plant species. The excellence of this State's program and the respect with which it is observed Nationwide would not be possible if not for our County, CWMA, Extension, local, and volunteer efforts on the ground. I am indeed excited and proud to be a part of this endeavor.

As I begin this new adventure, I have several short term goals. I am endeavoring to bring myself up to speed on the Idaho program and procedures in order not to hinder CWMA and other program's effectiveness. In November, I will begin the Leadership Idaho Agriculture program, which is bound to be time consuming but hopefully valuable in my long-term effectiveness in this position. We are currently modifying in a minor fashion our CWMA Cost Share Program's handbook with a target completion date of 10/15. Additionally, I am continuing to finish letters to those CWMA's that were selected for 2003 fiscal reviews. Also, I am making efforts to attend as many meeting and work sessions as I can fit into my schedule in an effort to meet with as many County and CWMA personnel as soon as possible.

We are striving to continue to provide good support, active customer service, and a comfortable approachable atmosphere. If any one has questions, concerns, or would just like to get to know me, please don't hesitate to contact me at (208) 332-8667.

Idaho Weed Awareness Campaign

Roger Batt - Coordinator, Idaho Weed Awareness Campaign

The Idaho Weed Awareness Campaign is continuing to help Counties with early detection and rapid response in the media. Most recently, Paul Jenkins, County Weed Superintendent with Caribou County found the county's first Spotted Knapweed infestation. Immediately, he alerted the Idaho Weed Awareness Campaign to this problem and within 24 hours, Channel 8 news in Idaho Falls was knocking on his doors to do a news story on the problem. A press release was also sent out talking about the infestation and it made the front page of their local newspaper. Wanted Posters on Spotted Knapweed were also sent and Paul has done an excellent job in distributing them across his county. Because of Caribou County's contacts with us and our abilities to get the media involved, many Caribou County citizens now can identify Spotted Knapweed in their area.

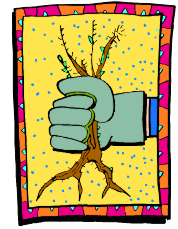
More recently, the Campaign has spent several hours helping Bruce Reichart with Outdoor Idaho on a documentary titled, "War of the Weeds." This documentary on invasive species (with a very high emphasis on noxious weeds) was shown on Idaho Public Television on September 16 and again on the 21. Bas Hargrove (Nature's Conservancy of Idaho), Jeffrey Pettingill (Bonneville County Weed Control) and I were asked to appear on the Dialogue Show following the documentary. This was an excellent opportunity to show Idaho citizens how real the noxious weed problem is and it gave us the opportunity to talk to Idahoans about treating infestations and to further stop spreading noxious weeds. The Campaign has given out close to 80 Idaho Noxious Weed Books to callers who watched the show.

The Campaign has partnered up with Mountain Visions, a company that produces interactive website technology to create a Virtual Interactive Website. Gary Grimm with Mountain Visions and I gave a proposal to the South West Idaho Resource and Conservation Committee on the 15 of September, requesting funding for this program. We have been asked to return for a second meeting to discuss the budget and funding for this program. The Website will serve as a central database and educational site for invasive weeds in Idaho. It will also provide a Community Bulletin Board for everyone to go to and place what events are happening in the state for weed control efforts, 360 degree panoramic shots of weeds, infested areas, and videos of noxious weeds and their information will be an additional learning tool for anyone using the internet.

Be sure to look for upcoming commercials on your television screen on weed free forage and ATV use. The Campaign has received generous funding from the Idaho Dept. of Fish & Game and the Idaho Dept. of Parks & Recreation to educate hunters and recreationalists on the importance of cleaning ATV's and other off-road vehicles and the importance of purchasing weed free forage and straw for pack animals. Radio commercials on these messages will also be aired on the Citadel Network and Clear Channel Radio. These radio and television commercials will air in all five media markets from Spokane, WA to Preston, ID.

CWMA Update

Rick VanBebber



Time passes quickly and we soon find the need to slow down and reflect. A lot can be learned from our successes and even failures of the past.

As a part of my responsibilities I have the opportunity to interact with 86 CWMA's throughout the Intermountain Region, including Idaho. New CWMA's are pushing ahead with enthusiasm and great expectations. They often struggle a bit with how to organize, who will do what, how to attract funding, how often to meet, etc. However their enthusiasm provides the energy to overcome these inevitable organization building hurdles. At the same time older CWMA's, who have answered most of those questions, have developed a methodical process. Although their operations may be repetitive and comfortable, enthusiasm and new ideas may wane. The same activities that were exciting a few years ago may now lack previous levels of commitment and participation. It seems, as in any organization, the bottom-line is how to maintain energy and productivity in a maturing CWMA. There are a number of books available on the general subject but here are a few quick items to focus on your CWMA:

First, it is important to initiate new ideas and projects into your CWMA. This can be accomplished in a number of ways such as:

- 1) Rotate your CWMA leadership.
- 2) Diversify and rotate your Steering Committee membership.
- 3) Leaders must delegate to maintain broader interest and participation.
- 4) Broaden community participation by establishing special project committees.

Second, it is equally important to provide opportunities for community participation and ownership. This can be accomplished by:

- 1) Establishing or expanding community work days. They continue to be some of our most popular CWMA activities.
- 2) Consider elementary school activities such as weed stories, activities, coloring and book mark contests.
- 3) Middle schools are a great place to initiate community education. Students are often interested in insects and can even develop their own science project focused on noxious weed biological control.
- 4) High school students can provide a bonanza of enthusiasm, educational interest, and a subsequent summer workforce. Some of our more successful programs incorporate GIS and GPS technology, weed identification, planning, organization, public speaking, and other skills into a science curriculum. Students are then employed by a CWMA during the following summer to do inventory and mapping as well as public education.

Third, and certainly not the least important, is to remember how your CWMA is going to get more done with the resources at hand. It is easy to be critical over the lack of funding. But is funding the only or even most important consideration? The following factors should be considered:

- 1) It is common for partner budgets to be stagnant or in some cases even declining. And yet at the same time some CWMA's are enjoying tremendous achievements without an increase in funding. How are they doing it? One experienced Steering Committee does a reality check with the question, "If we didn't receive any funding would working through our CWMA still be of value?" The answer continues to be "Yes" because of significant cooperation, in-kind contributions, understanding, sharing of resources, multiple work days, and overall coordination and effectiveness.
- 2) Additional funding often follows demonstrated success. It is not uncommon to see funding increase only after increased cooperation and in-kind contributions are proven. Focus on available human resources in your community and get them involved.
- 3) The bottom line in the fight against noxious weeds remains "PEOPLE"! We have the power to affect the future of our communities, including noxious weeds.
- 4) And finally, diversify your funding sources through multiple grants. This approach is akin to the old saying of "not putting all your eggs in one basket".

I hope your CWMA is still energized and successful. If it is struggling you might want to take time to read the CWMA Cookbook – A Recipe for Success. It is a simple desktop guide containing proven principles. And, look around you. Have you surrounded yourself by motivated people and exciting community activities? Maybe it is time for a change. Finally, I hope we all remember the bottom line. We are here for and because of each other. It really is all about people!

Mapping Update

Danielle Bruno



Geo 2 Issue

The error message is “this file has been truncated”

The developers have determined that this problem is specific to Pentium III PCs running Windows 98. The XmodemWin98Fast.reg patch will correct this problem. You should also be instructed to reboot after installation. A second file, XmodemWin98FastDefault.reg puts the settings back to default values. If you are having this problem, please contact your Trimble dealer to obtain the files.

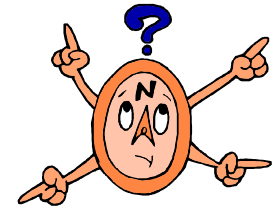
ArcGIS issue

For users of ArcGIS 8.x and windows XP, if the computer “crashes” out of ArcGIS to windows, try this solution:

- 1) Go to C:/
- 2) Documents and Settings
- 3) Open your User Profile (i.e. DHECKATH)
- 4) Open the folders Application Data/ESRI/ArcMap/Templates
- 5) Locate the file NORMAL.MXT, Delete this file

ArcMap should now perform more normally. If it starts to crash again, delete the file again.

Solution provided by Darcy Heckathorn



For more information, contact Danielle Bruno at (208) 332-8529 or dbruno@agri.state.id.us

Update on the Noxious Weed Free Hay and Forage Program

Dan Safford

To begin, I would like to introduce myself. I grew up on a hay farm and have worked in the private sector as a fieldman for a farm chemicals dealership and a seed company. I live on a small farm with my wife Gina, two children, and numerous horses.

I am excited about my new position and look forward to working with all stakeholders in the fight against noxious weeds. I have been attending the Annual Idaho Weed Control Association (IWCA) meeting for the last 10 years and am happy to be working on the weed elimination side of the fence. One of my primary duties is to manage the Noxious Weed Free Forage and Straw (NWFFS) program. I am the contact person for any questions concerning the NWFFS program, including bale tags, twine, and monthly summary reports. In addition, I will be working with CWMA managers in Southwest and Southern Idaho. Some of my initial goals for the NWFFS program include:

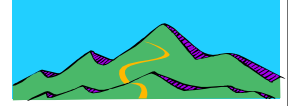
- Meet every County Superintendent in his or her County before the annual IWCA meeting;
- Be receptive to County Superintendents' and other stakeholders ideas to modify the Idaho Noxious Weed Rules or policies that govern the NWFFS program;
- Automate the reporting and production of bale tags;
- Work closer with growers to more effectively market Idaho NWFFS.

As the early fall rains begin to threaten and the first freeze of winter is on the horizon, the field certification season is coming to a close. I would like to thank all of the approximately 80 certified inspectors for doing such a wonderful job. To date, nearly 102,500 bale tags were requested for Noxious Weed Free Forage and Straw. With only partial reports in, nearly 7000 acres has been reported certified for the season. I am certain that the number will grow as all reports are compiled. Thank you again to all participants, especially the growers!





Forensic Botanists Find The Lethal Weapon Of A Killer Weed



By Carol Kaesuk Yoon

First printed at nytimes.com on Sept. 9, 2003

For over a century, spotted knapweed has been a growing scourge on the North American landscape, spreading across millions of acres of prairies, hillsides, roadsides and rangeland — pretty much anywhere it can get a root in the dirt. Everywhere it spreads, it replaces native grasses and other plant species to the consternation of conservationists as well as ranchers, whose cows refuse to eat it.

The weed, which sprouts pink and purple flowers and can grow a spindly three feet tall, is a European import, thought to have been introduced in North America as a contaminant in crop seeds or in dirt used as ship's ballast and then dumped. But scientists have long been baffled by the plant's appalling effectiveness at driving out other plants. Now in the current issue of the journal *Science*, researchers say they have found spotted knapweed's deadly secret: a potent and previously unknown poison that it releases through its roots into the soil to kill off neighboring plants. By eliminating its neighbors, the weed can appropriate all the water and nutrients that the other plants would have taken, and it has plenty of new space to spread out in.

Dr. Jorge M. Vivanco, a plant biologist at Colorado State University and an author of the study, says the toxin acts so quickly that within 10 seconds of contact the neighboring plants' roots begin producing chemicals that set off a cascade of events that will ultimately kill their own cells. "In one hour the roots die," he said. "The whole plant dies in a matter of days." The substance is such an effective herbicide that, Dr. Vivanco said, his university had already taken out a patent on it.

Scientists often assume that invasive exotic species are able to thrive in new environments because they have escaped from their predators and other enemies at home. But scientists say the new study suggests that such troublesome imports may also succeed by using potent but unrecognized methods, like chemical warfare.

"This is a really nice demonstration that other factors come into play," said Dr. Sarah Reichard, an invasion biologist at the University of Washington. "This paper shows that the interactions can be very subtle, things happening below ground that we really haven't had any knowledge about."

The notion that plants use poisons to suppress or kill their neighbors — a phenomenon known as allelopathy — has been around for decades. But until now, few scientists have had much use for it. "People have been rather dismissive of the whole subject," said Dr. Alastair Fitter, an ecologist at the University of York who was not involved in the study.

Part of the problem was that much of the earliest work was poorly done, he said in a telephone interview. But as Dr. Fitter wrote in an accompanying commentary in *Science*, he believes the new study is so convincing that it will "now place allelopathy firmly back on center stage."

The researchers found that the roots of the spotted knapweed released two forms of a chemical known as catechin (pronounced KAT-uh-kin) identical in all respects except that their molecular structures were mirror images of each other. One form, known as +catechin, is also found in green tea and was already known as an antioxidant, able to neutralize the harmful molecules called reactive oxygen species that are thought to speed the aging process. The toxin turned out to be the second form, -catechin, which had essentially the opposite effect of its mirror image. It induced the production of harmful reactive oxygen species in neighboring plant roots, setting off the process that led to cell death.

The finding helps explain the failure of many efforts to fight the onslaught of spotted knapweed by burning it and then seeding the area with desired plants. "What they've seen is that 99 percent of the seeds died, and now we know why," said Dr. Vivanco. With -catechin soaked into the soil, he said, susceptible seeds have no chance of making it.

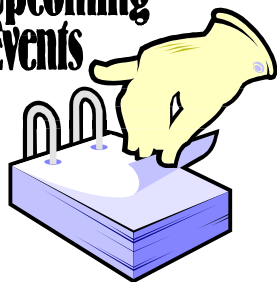
But even though the poison is very powerful, it remained unknown to researchers because everything was happening below ground. "One plant arrives in a field where there are a lot of native plants," Dr. Vivanco said. "The next year you see not one, but actually a patch of spotted knapweed where the natives were. And if there are still native plants near it, they don't look so healthy."

Around Missoula, Mont., home of the University of Montana, for example, a diversity of native species once bloomed. Now after several decades of this subtle underground warfare, the hills have become a vast monoculture of spotted knapweed, Dr. Vivanco said, as have millions of acres in that particularly hard-hit state. The scientists found that the grasses that grow alongside spotted knapweed in Europe are much better able to resist its toxins than native North American grasses. Scientists say this suggests that the European grasses have evolved a resistance to this potent toxin, one that North American grasses lack.

Since spotted knapweed landed in North America, a century or so ago, it has spread to nearly every state and has caused a variety of problems. Eric Lane, the state weed coordinator for Colorado, said the loss of native plant species curtailed the food supply not only for cattle but for wild species like elk, many birds and insects. In some states, he said, the spread of spotted knapweed is so severe that elk herds have altered migration pathways to avoid vast inedible swaths of it.

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Upcoming Events



Nov. 8-10, 2004	Wyoming Weed and Pest Council Annual Meeting; Cody, ND www.wyoweed.org
Jan. 2005	Montana Weed Control Assoc. Annual Meeting www.mtweed.org
Jan. 2005	California Weed Science Society Annual Meeting www.cwss.org
Feb. 2-3, 2005	Idaho Weed Control Assoc. Annual Meeting; Nampa ID Elaine Smith, (208) 888-0988
Feb. 7-10, 2005	WSSA Annual Meeting; Honolulu, Hawaii http://www.wssa.net/
Feb. 27 - Mar. 4, 2005	National Invasive Weed Awareness Week IV www.nawma.org
March 8-10, 2005	WSWS Annual Meeting; Vancouver, British Columbia http://www.wsweedscience.org/
April 5 - 7, 2005	Invasive Species Workshop, Bismark, ND Will Maks, (701) 848-2722 ext. 27, lostwood@fws.gov
April 25-28, 2005	WSWS Noxious WEed Management Short Course; Pray, MT Celestine Duncan, (406) 443-1469, weeds1@ixi.net
July 2005	Aquatic Plant Management Society Annual Meeting www.apms.org
Sept. 2005	NAWMA Vegetation Management Conference; Kansas www.nawma.org



Publication Update

Aquarium and Pond Plants of the World - an interactive identification and information guide for Aquarium and Pond Plants of the World on CD. To obtain a copy, please contact Laura Duffie at (919) 855-7420 or laura.e.duffie@aphis.usda.gov

Encyclopedia of North American Weeds - International Shipping - This program is an interactive encyclopedia on DVD. An outstanding resource for agriculturalists, horticulturalists, gardeners, herbalists, and all types of courses in the agricultural and biological sciences at the high school and collegiate level. For more information, visit https://timssnet.allenpress.com/ECOMWSSA/timssnet/products/tnt_products.cfm

1,000 Weeds of North America: An Identification Guide. This new CD from WSSA in cooperation with XID Services Inc. is an easy-to-use interactive program containing pictures and identifying characteristics of 1,000 problem weed species in managed or native areas. To order, call 1-800-627-0629 ext. 297 or visit <http://www.wssa.net>

Teach children how to identify invasive weeds and realize their negative impacts in various ecosystems. The **Woody Owl Invasive Weeds Activity Kit** includes a letter from Woody on invasive weeds, how to use the kit, 10 illustrations of weeds showing their effects, and 10 story lines developed by Scholastics Inc. targeting ages 7 -10. For more information, visit http://symbols.gov/catalog/products/woody_item.html?NFES%2099243

Upcoming Pesticide Exams---Please Call (208)332-8600 to Verify!

Must be 18 or older. Photo ID Required. Exam fees must be paid and received before exam results will be released.

Northern Idaho

Sept. 23	522 S. Adams, Latah Co. Courthouse	Moscow
Oct. 6	4205 N. Boyer, Bonner Co. Fairgrounds	Sandpoint
Oct. 20	1225 Idaho St., Brammer Building	Lewiston
Nov. 17	6447 Kootenai St., Courthouse Annex	Bonnars Ferry
Dec. 8	2750 Kathleen Ave., ID Dept. of Fish & Game	Coeur d'Alene

Eastern Idaho

Sept. 15	BYU-Idaho, Mechanics Bldg 525 S. Center Rm. 115	Rexburg
Oct. 6	2925 Rollandet, Bonneville Co. Extension	Idaho Falls
Nov. 17	157 N. Broadway, City Hall-Council Chambers	Blackfoot
Dec. 1	BYU-Idaho, Mechanics Bldg 525 S. Center Rm. 115	Rexburg

South Central Idaho

Sept. 8	CSI - Taylor Building, Room #276	Twin Falls
Oct. 6	McGregor Center, Minidoka Fairgrounds, 85 E. Baseline	Rupert
Nov. 3	CSI - Taylor Building, Room #276	Twin Falls
Dec. 8	McGregor Center, Minidoka Fairgrounds, 85 E. Baseline	Rupert

Southeast Idaho

Sept. 22	53 E. 1st St., Caribou Co. Ext. Office	Soda Springs
Oct. 13	130 N. 6th Ave. Bannock Co. Ext. Office	Pocatello
Oct. 27	561 W. Oneida, Franklin Co. Ext. Office	Preston
Nov. 10	130 N. 6th Ave. Bannock Co. Ext. Office	Pocatello
Dec. 15	30 N. 100 W., Oneida Co. Ext. Office	Malad

Southwest Idaho

Sept. 22	ISDA, 2270 Old Penitentiary Rd.	Boise
Oct. 3	501 Main St. Co. Ext. Office	Caldwell
Nov. 10	ISDA, 2270 Old Penitentiary Rd.	Boise
Dec. 15	501 Main St. Co. Ext. Office	Caldwell



Pesticide Disposal Program

The Agricultural producers, dealers, applicators and homeowners who are storing unusable pesticides have a safe, legal and free opportunity to dispose of them. Pesticides become unusable for many reasons, including loss of potency, exposure to temperature extremes, cancellation or suspension by state or federal authorities, or growers' decisions to change their crop rotations or practices.

Participation is free for the first 1,000 pounds of unusable pesticide per participant. The unusable pesticides will be incinerated or otherwise destroyed.

Collections usually occur in the Spring and Fall. The next unusable pesticide collection will be held on October 22, 2004 at the Pickles Butte Landfill. Additionally, the PDP is also working in conjunction with the Canyon County Household Hazardous Waste Collection scheduled on Oct 23, 2004. For assistance in the identification of unknown pesticides and other information about the collections, please visit <http://www.agri.idaho.gov/agresource/pdptoc.htm>

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The weed has also led to erosion because it does not hold soil as well as native grasses. In the search for solutions to this green plague, researchers were excited to discover that the plant *Arabidopsis thaliana*, whose entire genome has already been sequenced, is susceptible to -catechin. As a result, they can see in detail how a plant's genome reacts when its roots are hit with the toxin.

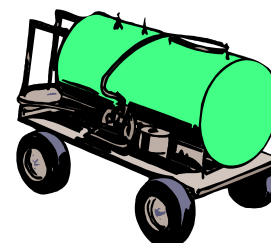
The scientists found 10 genes that appear to shift into high gear immediately. Scientists say they hope that by identifying what those genes are doing, presumably mounting the beginnings of a defense, they can genetically engineer plants that can more effectively resist the spotted knapweed's attacks. Researchers are also testing to see what native plants are resistant to the -catechin. They hope to develop a list of species that can be used to revegetate an area after spotted knapweed has been burned.

So far, the researchers have found no native plants that can withstand the poison.

Other News

Giant Knotweed Confirmed in Payette Co.

Earlier this summer, Giant Knotweed (*Polygonum sachalinense*) was confirmed along a canal bank in Payette County. Giant knotweed is closely related to Japanese knotweed but is considerably larger. Giant knotweed is an herbaceous perennial, strongly rhizomatous, growing over 12 feet tall. The hollow stems are jointed and swollen at the nodes, giving a bamboo-like appearance. The leaves are alternate, petiolate, and they often exceed one foot long, and are 2/3 as wide - twice the size of Japanese knotweed. The leaf shape of giant knotweed is heart-shaped. Be on the lookout for this new invader!



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